WHAT IS CLAIMED IS:

1. A recording apparatus comprising:

transporting means for transporting recording sheets in a transportation direction;

a platen positioned facing a recording head which records on the recording sheets, comprising a plurality of grooves and ridges extending in the transportation direction; and

rotating members disposed downstream in the transportation direction from the recording head, and pressed against bottom surfaces of said grooves.

2. A recording apparatus according to Claim 1, further comprising additional rotating members disposed downstream in the transportation direction from the recording head, and pressed against said ridges.

3. A recording apparatus according to Claim 1, wherein an offset between said ridges and said grooves at positions where said rotating members are disposed is 0.5 mm or less.

4. A recording apparatus according to Claim 1, wherein portions of at least one of said plurality of grooves and said plurality of ridges are formed of roller members

rotatably supported by said platen, with the upper face of the perimeter of said roller member having generally the same height as a portion of the platen upstream thereto with respect to the transportation direction.

5. A recording apparatus according to Claim 1, wherein said platen comprises wave shape providing means upstream in the transportation direction from the recording head, having a plurality of grooves and ridges extending in the transportation direction, wherein the recording sheets are provided with wave shapes such that crests are formed at said ridges and troughs are formed at said grooves.

6. A recording apparatus according to Claim 5, wherein said wave shape providing means comprises a transporting roller pair and said ridges and grooves upstream in the transporting direction from the recording head, wherein a nip position of said transporting roller pair is above said ridges, and wherein, of said transporting roller pair, the roller which comes in contact with the recording face of the recording sheets is offset toward said recording head relative to the roller which comes in contact with the face of the recording sheets opposite to the recording face, so as to press the recording sheets against said platen.

7. A recording apparatus according to Claim 5, wherein said wave shape providing means comprises a sheet guide member for guiding the recording sheets to said ridges and grooves, and has protrusions for guiding the recording sheets to said grooves.

8. A recording apparatus according to Claim 7, wherein the protrusions on said sheet guide member are elastically deformable.

9. A recording apparatus comprising:

transporting means for transporting recording sheets in a transportation direction;

a platen positioned facing a recording head which records on the recording sheets, comprising groups of ridges extending in the transportation direction, said groups including at least a first ridge group comprising first ridges of a greatest height, and a second ridge group comprising second ridges of heights lower than said first ridges, said second ridge group including ridges of one or more height types; and

rotating members disposed downstream in the transportation direction from the recording head, and pressed against ridges of at least one type of said second ridge group.

10. A recording apparatus according to Claim 9, further comprising additional rotating members disposed downstream in the transportation direction from said recording head, and pressed against a position facing said first ridges.

11. A recording apparatus according to Claim 9, wherein an offset between said first ridges and said second ridges against which said rotating members are pressed against is 0.5 mm or less.

12. A recording apparatus according to Claim 9, wherein portions of at least one of said first ridges with the greatest height, and said plurality of second ridges which are lower than said first ridges against which said rotating members are pressed, are formed of roller members rotatably supported by said platen, with the upper face of the perimeter of each roller member having generally the same height as the portion of the platen upstream thereto with respect to the transportation direction.

13. A recording apparatus comprising:

transporting means for transporting recording sheets in a transportation direction;

a platen positioned facing a recording head which records on the recording sheets, comprising a plurality of grooves and ridges extending in the transportation direction; and

first rotating members disposed downstream in the transportation direction from the recording head so as to face said grooves, and supported so as to be elastically movable in at least directions toward and away from the recording sheets,

wherein slits are formed in said grooves where said first rotating members face, such that said first rotating members do not come into contact with said grooves, and

wherein, in a state that no recording sheet is present at the positions wherein said first rotating members face said slits, lower faces of perimeters of said first rotating members are generally the same height as said grooves, or within said slits.

14. A recording apparatus according to Claim 13, further comprising second rotating members disposed downstream in the transportation direction from the recording head so as to face said plurality of ridges of said platen, and supported so as to be elastically movable in at least directions toward and away from the recording sheet,

wherein second slits are formed in said ridges where said second rotating members face, such that said second rotating members do not come into contact with said ridges, and

wherein, in the state that no recording sheet is present at the positions wherein said second rotating members face said second slits, lower faces of the perimeters of said second rotating members are generally the same height as said ridges, or within said second slits.

15. A recording apparatus according to Claim 13, wherein an offset between said ridges at the positions where said second rotating members are disposed and said grooves where said slits are formed is 0.5 mm or less.

16. A recording apparatus according to Claim 13, wherein transporting means disposed downstream in the transportation direction from the recording head comprises a transporting roller pair generally downstream in the transportation direction from said ridges, for nipping and transporting the recording sheets.

17. A recording apparatus comprising:

transporting means for transporting recording sheets in a transporting direction;

a platen positioned facing a recording head which records on the recording sheet, comprising groups of ridges extending in the transportation direction, said groups including at least a first ridge group comprising first ridges of a greatest height, and a second ridge group comprising second ridges of height lower than said first ridges, said second group including ridges of one or more height types; and

first rotating members disposed downstream in the transportation direction from the recording head, and facing ridges of at least one type of said second ridge group, and supported so as to be elastically movable in at least a direction toward and away from the recording sheets,

wherein slits are formed in said second ridges where said first rotating members face, such that said first rotating members do not come into contact with said second ridges, and

wherein, in a state that no recording sheet is present at the positions wherein said first rotating members face said slits, lower faces of perimeters of said first rotating members are generally the same height as said second ridges faced thereby, or within said slits.

18. A recording apparatus according to Claim 17, wherein the offset between said first ridges where said

second rotating members are disposed and said second ridges where said slits are disposed is 0.5 mm or less.

19. A recording apparatus according to Claim 17, further comprising second rotating members disposed downstream in the transportation direction from the recording head so as to face said first ridges, and supported so as to be elastically movable in at least directions toward and away from the recording sheets,

wherein second slits are formed in said first ridges where said second rotating members face, such that said second rotating members do not come into contact with said first ridges, and

wherein, in a state that no recording sheet is present at the positions wherein said second rotating members face said second slits, lower faces of perimeters of said second rotating members are generally the same height as said first ridges, or within said second slits.

20. A recording apparatus according to Claim 19, further comprising roller members rotatably supported by said platen, said rollers member having groove-shaped slits facing said first and second rotating members, with the portions to either side of the grooves of said roller members having generally the same height as the portion of

the platen upstream therefrom.

21. A recording apparatus according to Claim 17, further comprising transporting means disposed downstream in the transportation direction from said recording head and comprising a transporting roller pair generally downstream in the transportation direction from said first ridges, for nipping and transporting said recording sheets.